

Attorney Docket No.: WON-0002
Inventors: Kim et al.
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This listing of the claims will replace all prior versions and listings of claims in the application:

Listing of the claims:

Claims 1-16: (canceled)

Claim 17: (new) A method for diagnosing renal diseases, hepatic diseases, rheumatoid arthritis or cardiovascular diseases, said method comprising detecting an amount of β ig-h3 protein comprising the following steps:

- (a) preparing recombinant proteins of β ig-h3 or β ig-h3 fas-1 domains, their fragments or derivatives, as standard proteins;
- (b) preparing specific ligands against the above recombinant proteins, their fragments or derivatives of the above step 1; and
- (c) measuring the amount of β ig-h3 protein of samples with the method using binding reaction of ligands of the above step 2 with the recombinant proteins, their fragments or derivatives of the above step 1.

Claim 18: (new) The method as set forth in claim 17, wherein the ligands of step 1) are selected from a group consisting of antibodies, RNA, DNA, lipids, proteins, organic compounds and inorganic compounds.

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Claim 19: (new) The method as set forth in claim 17, wherein the specific binding reaction of step 3) is antigen-antibody reaction.

Claim 20: (new) The method as set forth in claim 19, wherein the antigen-antibody reaction is performed by a method selected from a group consisting of immunoblotting, immunoprecipitation, ELISA, RIA, protein chip, rapid assay and microarray.

Claim 21: (new) The method as set forth in claim 19, wherein the antigen-antibody reaction of step 3) comprises the following steps:

- (a) coating recombinant proteins of β ig-h3 or β ig-h3 fas-1 domains, their fragments or derivatives to matrix;
- (b) reacting antibody against the protein of the above step 1, its fragments or derivatives with sample;
- (c) adding the reactant of the above step 2 to the coated protein of step 1 and waiting for reaction, and then washing thereof; and
- (d) adding the secondary antibody to the reactant of the above step 3 for further reaction, and then measuring OD.

Claim 22: (new) The method as set forth in claim 17, wherein the β ig-h3 protein is human β ig-h3 protein having an amino acid sequence represented by SEQ ID NO:3 or mouse β ig-h3 protein having an amino acid sequence represented by SEQ ID NO:5.

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Claim 23: (new) The method as set forth in claim 17, wherein the recombinant β ig-h3 proteins comprising 4th fas-1 domains have 1-10 repeatedly-linked fas-1 domains.

Claim 24: (new) The method as set forth in claim 23, wherein the fas-1 domain of β ig-h3 is selected from a group consisting of sequences represented by SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9 and SEQ ID NO:10.

Claim 25: (new) The method as set forth in claim 17, wherein the sample can be any body fluid including urine, blood or synovial fluid.

Claims 26: (new) A diagnostic kit for the renal diseases, hepatic diseases, rheumatoid arthritis or cardiovascular diseases comprising β ig-h3 protein or recombinant proteins of fas-1 domain in the β ig-h3 protein or fragments or derivatives thereof and their ligands.

Claim 27: (new) The diagnostic kit as set forth in claim 26, wherein the ligand is selected from a group consisting of antibody specifically binding to β ig-h3 protein, fas-1 domain of β ig-h3, their fragments or derivatives, RNA, DNA, lipids, proteins, organic compounds and inorganic compounds.

Claim 28: (new) The diagnostic kit as set forth in claim 27, wherein the ligand is antibody.

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Claim 29: (new) The diagnostic kit as set forth in claim 28, wherein the kit additionally includes buffer solution, secondary antibody, washing solution, stop solution or coloring substrate.

Claim 30: (new) The diagnostic kit as set forth in claim 26, wherein the β ig-h3 protein is human β ig-h3 protein having an amino acid sequence represented by SEQ ID NO:3 or mouse β ig-h3 protein having an amino acid sequence represented by SEQ ID NO:5.

Claim 31: (new) The diagnostic kit as set forth in claim 26, wherein 1 or 2-10 4th fas-1 domains of β ig-h3 protein are repeatedly linked.

Claim 32: (new) The diagnostic kit as set forth in claim 31, wherein the fas-1 domain of β ig-h3 is selected from a group consisting of sequences represented by SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9 and SEQ ID NO:10.